

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently amended) A computer implemented system for determining whether a packed executable is malware, the system comprising:

a malware evaluator for determining whether incoming data is malware, wherein the incoming data directed to a computing device is intercepted by the malware evaluator; and

an unpacking module that receives a packed executable from the malware evaluator and returns an unpacked executable corresponding to the packed executable;

wherein the malware evaluator, upon receiving incoming data, determines can at least in part determine whether the incoming data is a packed executable, and if so, provides the malware evaluator provides the packed executable to the unpacking module and receives such that an unpacked executable can be received from the unpacking module an unpacked executable, and, such that the malware evaluator can determine ~~determines~~ whether the unpacked executable is malware.

2. (Withdrawn) A system for unpacking a packed executable for evaluation as malware, the system comprising:

a set of unpacker modules, the set of unpacker modules comprising at least one unpacker module and wherein each unpacker module corresponds to executable code for unpacking a particular type of packed executable; and

an unpacking manager, wherein the unpacking manager, upon obtaining a packed executable, selects an unpacker module from the set of unpacker modules to unpack the packed executable according to the type of the packed executable, and executes the selected unpacker module which generates an unpacked executable corresponding to the packed executable.

3. (Withdrawn) The system of Claim 2, wherein each unpacker module in the set of unpacker modules implements a confirmation interface routine for confirming whether the unpacker module is capable of unpacking the packed executable; and
- wherein the unpacking manager selects an unpacker module from the set of unpacker modules to unpack the packed executable by:
- iteratively calling the confirmation interface routine of each unpacker module in the set of unpacker modules until an unpacker module responds affirmatively to the call of its confirmation interface routine indicating that it can unpack the packed executable; and
- selecting that unpacker module that responded affirmatively.
4. (Original) A method for determining whether incoming data is malware, the method comprising:
- intercepting incoming data directed to a computing device;
- determining whether the incoming data is a packed executable; and
- if the incoming data is a packed executable:
- generating an unpacked executable, the unpacked executable corresponding to the packed executable; and
- determining whether the packed executable is malware by evaluating whether the unpacked executable is malware.
5. (Withdrawn) A method for unpacking a packed executable for evaluation as malware, the method comprising:
- obtaining a packed executable;
- selecting an unpacker module from a set of unpacker modules operable to unpack the packed executable; and
- executing the selected unpacker module, thereby generating an unpacked executable corresponding to the packed executable.

6. (Withdrawn) An extensible unpacking module for unpacking a packed executable for evaluation as malware, the system comprising:

an set of unpacker modules comprising at least one unpacker module, wherein each unpacker module corresponds to executable code for unpacking a packed executable of a particular type, wherein the set of unpacker modules is dynamically extensible such that unpacker modules may be selectively added or removed to the set of unpacker modules; and

an unpacking manager, wherein the unpacking manager, upon obtaining a packed executable, selects an unpacker module from the set of unpacker modules to unpack the packed executable according to the type of the packed executable, and executes the selected unpacker module which generates an unpacked executable corresponding to the packed executable.

7. (New) The system of Claim 1, wherein the returned unpacked executable corresponding to the packed executable is based at least in part on code or data derived from employing an unpacker other than the loader/unpacker received with the packed executable.

8. (New) The system of Claim 7, wherein the employed unpacker is selected from a group of at least one modularized unpacker modules germane to unpacking a packed executable of a particular type and further germane to unpacking a packed executable that has been intercepted by the malware evaluator.

9. (New) The system of Claim 1, wherein the intercepted incoming data resides only in one or more logically or physically isolated memory stores such that the intercepted incoming data can be located at a computer but does not actually “reach” the computer.

10. (New) The system of Claim 9, wherein the one or more isolated memory stores comprise at least one of a random access memory, a floppy disk, a flash memory storage device, magnetic tape, a quarantine area of a hard drive, a logical partition of a hard drive, or combinations thereof.

11. (New) The system of Claim 1, wherein the unpacked executable generated by the unpacking module corresponds to a complete packed executable and not just a portion thereof.

12. (New) The system of Claim 11, wherein the generated unpacked executable corresponding to a complete unpacked executable is unpacked without executing any portion thereof.
13. (New) The system of Claim 1, wherein the malware evaluator determines whether the incoming data is malware without unpacking the incoming data if the incoming data is determined not to be a packed executable.
14. (New) The system of Claim 1, wherein the incoming data can be intercepted from at least one data source including a wired computer network, a wireless computer network, and distributable media further including a floppy disk, a flash memory storage device, a CD-ROM disk, a CD-RW disk, a magnetic tape, a DVD-ROM disk, a DVD-RW disk, or combinations thereof.
15. (New) The system of Claim 1, further comprising, first determining whether the incoming data is known malware before determining if the incoming data is a packed executable, and if not, then determining if the incoming data is a packed executable.
16. (New) The system of Claim 15, wherein anti-virus software can be employed in determining whether the incoming data is malware.
17. (New) The system of Claim 16, wherein the determining by anti-virus software can be by signature or pattern recognition processes.
18. (New) An electronic device comprising the system of Claim 1, such that the electronic device can be placed between a network and a computer device to facilitate intercepting data directed to a computing device.
19. (New) The method of Claim 4, further comprising, first determining whether the incoming data is known malware before determining if the incoming data is a packed executable.

20. (New) The method of Claim 4, wherein generating an unpacked executable at least in part employs an unpacker other than the loader/unpacker received with the packed executable
21. (New) The method of Claim 20, wherein the employed unpacker is selected from a group of at least one modularized unpacker modules germane to unpacking a packed executable of a particular type and further germane to unpacking a packed executable that has been intercepted.
22. (New) The method of Claim 4, wherein intercepting incoming data intercepts data as it arrives at the computing device from a network or a distributable media.
23. (New) The method of Claim 4, wherein generating the unpacked executable occurs without executing any portion of the unpacked executable.
24. (New) The method of Claim 4, wherein the unpacked executable corresponds to a complete packed executable and not just a portion thereof.